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(54) Title: METHOD FOR MANUFACTURING ABSORBER LAYERS FOR SOLAR CELL

(57) Abstract: The present invention relates to a process for producing CuInSe_2 and $\text{CuIn}_{1-x}\text{Ga}_x\text{Se}_2$ thin films used as an absorption layer for a solar cell such that they have a structure near to chemical equivalence ratio. The present invention provides a process for producing a thin film for a solar cell, comprising forming an InSe thin film on a substrate by Metal Organic Chemical Vapor Deposition using a $[\text{Me}_2\text{In}-(\mu\text{SeMe})_2]$ precursor; forming a Cu_2Se thin film on the InSe thin film by Metal Organic Chemical Vapor Deposition using a $(\text{hfac})\text{Cu}(\text{DMB})$ precursor; and forming a CuInSe_2 thin film on the Cu_2Se thin film by Metal Organic Chemical Vapor Deposition using a $[\text{Me}_2\text{In}-(\mu\text{SeMe})_2]$ precursor. Further, the process may further comprise forming a $\text{CuIn}_1\text{Ga}_x\text{Se}_2$ thin film on the CuInSe_2 thin film by Metal Organic Chemical Vapor Deposition using a $[\text{Me}_2\text{Ga}-(\mu\text{SeMe})_2]$ precursor.



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